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10/722,734	11/25/2003	Makoto Yokoi		7309

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HOGAN & HARTSON L.L.P.  
1999 AVENUE OF THE STARS  
SUITE 1400  
LOS ANGELES, CA 90067

EXAMINER

LE, TUAN H

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2622

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/722,734

Applicant(s)

YOKOI, MAKOTO

Examiner

Tuan H. Le

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on Amendments filed on 10/9/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 3,15,17-19,21-31 and 40-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3,15,17,18,19,21-31,40-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments with respect to independent claims 18, 43 and 44 have been considered but are moot in view of the new ground(s) of rejection. More specifically, the examiner withdraws the objection of claims 18 and 19, which were indicated as allowable subject matter in the prior Office Action.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 18, 3, 15, 17, 19, 21, 29, 40, 41, 42, 43 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Kubo (U.S. Pub. 2002/0196348) in view of Loui (U.S. Pat. 6,937,273).**

Regarding **claim 18**, Kubo discloses an image pickup device (Kubo, Fig. 1 and Fig. 2) comprising:

an imaging section (16, CCD or CMOS) that executes a moving picture pickup processing and a still picture pickup processing;

an interrupt processing section (controller 30 and release button) that sequentially executes, during the moving picture pickup processing by the imaging section, a processing to suspend the moving picture pickup processing by the imaging section, a processing to pickup a still picture by the imaging section, and a processing

to resume the moving picture pickup processing by the imaging section (Kubo, Fig. 1, Fig. 2, and paragraph [0053], wherein the release button is used to record still image and to stop/start moving image recording),

the image pickup device further comprising:

a moving picture file creation section (controller 30, memory 32, and recording 38) that creates a single moving picture file that includes moving picture frames obtained through the moving picture pickup processing executed before the still picture pickup processing by the imaging section, and moving picture frames obtained through the moving picture pickup processing resumed after the still picture pickup processing (Kubo, Fig. 2, recording of images is shown); and

a substitute frame creation section (controller 30 and recording 38) that creates substitute frames substituting for moving picture frames missing due to suspension of the moving picture pickup processing, wherein the moving picture file creating section creates a moving picture file including the substitute frames created by the substitute frame creation section (Kubo, Fig. 2, wherein repeated recording of movie B is performed). However, Kubo does not disclose

a voice recording section that executes a voice recording processing in parallel with the moving picture pickup processing; and

wherein the interrupt processing section continually executes the voice recording processing executed by the voice recording section in parallel with the moving picture pickup processing before the moving picture pickup processing is suspended, until the moving picture pickup processing is resumed.

On the other hand, Louis discloses  
a voice recording section (audio recording) that executes a voice recording processing in parallel with the moving picture pickup processing; and  
wherein the interrupt processing section continually executes the voice recording processing executed by the voice recording section in parallel with the moving picture pickup processing before the moving picture pickup processing is suspended, until the moving picture pickup processing is resumed (Loui, Fig. 2, column 1 lines 50-60, wherein a digital video camera adapted to record both motion and higher resolution still images is used for capturing a motion image and accompanying audio of a scene).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the audio recording as described by Loui into the image pickup device as described by Kubo in order to capture sound of a scene because such incorporation provide more environmental information to the captured video.

Regarding **claim 3**, Kubo and Loui disclose all of the limitations of claim 18. In addition, Kubo discloses

a recording section (38) that stores the single moving picture file created by the moving picture file creation section, correlated with voice data obtained through the voice recording processing executed by the voice recording section (Kubo, Fig. 1, Fig. 2).

Regarding **claim 15**, Kubo and Loui disclose all of the limitations of claim 18. In addition, Kubo discloses

a resumption instruction section (controller 30 and release button) that instructs to resume the moving picture pickup processing by the imaging section, wherein the interrupt processing section executes a processing to resume the moving picture pickup processing by the imaging section, when the resumption instruction section instructs to resume the moving picture pickup processing by the imaging section after the still picture pickup processing is completed (Kubo, Fig. 1, Fig. 2, and paragraph [0059], wherein still image capturing mode interrupts movie capturing mode by pressing release button).

Regarding **claim 17**, Kubo and Loui disclose all of the limitations of claim 18. In addition, Kubo discloses

a recording section (32 and 38) that records the single moving picture file created by the moving picture file creation section (Kubo, Fig. 1 and paragraph [0052]).

Regarding **claim 19**, Kubo and Loui disclose all of the limitations of claim 18. In addition, Kubo discloses

the substitute frame creation section (controller 30 and recording 38) creates the substitute frames using moving picture frames obtained through the moving picture pickup processing executed immediately before the moving picture pickup processing is suspended (Kubo, Fig. 2, wherein movie B is repeatedly recorded).

Regarding **claim 21**, Kubo and Loui disclose all of the limitations of claim 18. In addition, Kubo discloses

a synchronizing control section (controller 30 and time generator 18) that synchronizes a start timing to resume the moving picture pickup processing by the

imaging section with a moving picture frame pickup cycle of the moving picture pickup processing conducted before the moving picture pickup processing is suspended (Kubo, Fig. 2, combination of VD, state of image pickup device, and drive of image pickup device).

Regarding **claim 29**, Kubo and Loui disclose all of the limitations of claim 18. In addition, Kubo discloses

a synchronization control section (controller 30 and time generator 18) that synchronizes a start timing for resuming the moving picture pickup processing by the imaging section with a moving picture frame pickup cycle of the moving picture pickup processing taking place before the moving picture pickup processing is suspended (Kubo, Fig. 2, combination of VD, state of image pickup device, and drive of image pickup device).

Regarding **claim 31**, Kubo and Loui disclose all of the limitations of claim 18. In addition, Kubo discloses

the interrupt processing section (controller 30 and release button) executes the still picture pickup processing a plurality of times during a period between the time the processing to suspend the moving picture pickup processing is executed and the time the processing to resume the moving picture pickup processing is executed (Kubo, Fig. 1, Fig. 2, and paragraph [0053], wherein it is inherent that release button is used to multiple still images).

Regarding **claim 40**, Kubo and Loui disclose all of the limitations of claim 18. In addition, Kubo discloses

the substitute frame creation section (controller 30 and recording 38) creates the substitute frames using moving picture frames obtained in the moving picture pickup processing executed immediately after the moving picture pickup processing has been resumed (Kubo, Fig. 6, wherein movie C is repeated).

Regarding **claim 41**, Kubo and Loui disclose all of the limitations of claim 18. In addition, Kubo discloses

the substitute frame creation section (controller 30 and recording 38) combines a plurality of moving pictures frames obtained in the moving picture pickup processing to create the substitute frames (Kubo, Fig. 6, wherein movie C and movie B are combined).

Regarding **claim 42**, Kubo and Loui disclose all of the limitations of claim 18. In addition, Kubo discloses

42. (New)An image pickup device according to claim 41, wherein

the substitute frame creation section (controller 30 and recording 38) combines a plurality of moving pictureframes obtained in the moving picture pickup processing at a predetermined rate to crate the substitute frames (Kubo, Fig. 6, wherein movie C and movie B are combined), and

the moving picture file creation section (controller 30, memory 32, and recording 38) creates a moving picture file such that moving picture frames substituting for missing moving picture frames change in a stepwise fashion (Kubo, Fig. 6, wherein movie C and movie B are combined and movie B changes in forward stepwise and movie C changes in backward stepwise).



Regarding **claim 43**, same ground of rejection as in claim 18 is applied.

Regarding **claim 44**, same ground of rejection as in claim 18 is applied.

**Claims 22-28, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Kubo (U.S. Pub. 2002/0196348) in view of Loui (U.S. Pat. 6,937,273) and further in view of Monti (U.S. Pat. 6,680,748).**

Regarding **claim 22**, Kubo and Loui disclose all of the limitations of claim 18.

However, Kubo and Loui do not disclose

a timer section that measures the time elapsed since the processing to suspend the moving picture pickup processing is executed by the interrupt processing section, a judging section that judges as to whether or not the time measured by the timer section has reached a predetermined time before the processing to resume the moving picture pickup processing by the interrupt processing section is executed, and a predetermined processing execution section that executes a predetermined processing when the judging section determines that the predetermined time has been reached.

On the other hand, Monti discloses a timer section (258) that measures the time elapsed since the processing to suspend the moving picture pickup processing is executed by the interrupt processing section, a judging section (258) that judges as to whether or not the time measured by the timer section has reached a predetermined time before the processing to resume the moving picture pickup processing by the interrupt processing section is executed, and a predetermined processing execution section (258) that executes a predetermined processing when the judging section determines that the predetermined time has been reached (see Monti, Figs. 2A, 2E, 2D,

wherein step 208 determines if time has elapsed and decides to resume video capture or to capture still image).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the timer section, judging section, and predetermined processing execution section as described by Monti with the image pickup device as described by Kubo and Loui in order to switch between motion image mode and still image mode because such combination minimizes storage capacity and thus reduces camera cost.

As for **claim 23**, Kubo, Loui and Monti disclose all of the limitations of the parent claim. In addition, Monti discloses an image pickup instruction section (258) that instructs to pickup a still picture, wherein the predetermined processing execution section executes a notice processing to urge an instruction to pickup a still picture by the image pickup instruction section (see Monti, Figs. 2A and 2E wherein still image is captured in step 210).

As for **claim 24**, Kubo, Loui and Monti disclose all of the limitations of the parent claim. In addition, Monti discloses that the predetermined processing execution section (258) causes the interrupt processing section to forcefully execute the processing to resume the moving picture pickup processing by the interrupt processing section, (see Monti, Figs. 2A and 2E, wherein video image is captured in step 204).

As for **claim 25**, Kubo and Loui disclose all of the limitations of the parent claim. However, Kubo and Loui do not disclose multiple executions of still images by the interrupt processing section.

On the other hand, Monti discloses executing still picture pickup processing a plurality of times during a period starting when the processing to suspend the moving picture pickup processing is executed until the processing to resume the moving picture pickup processing is executed (see Monti, column 7 lines 33-39, wherein multiple still images are captured and stored during interlace interval).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the executing still image pickup processing a plurality of times as described by Monti with the image pickup device as described by Kubo and Loui in order to obtain multiple still images because such combination provides more information about a scene captured by the still images.

As for **claim 26**, Kubo and Loui and Monti disclose all the limitations of the parent claim. In addition, Monti discloses the limitation of the maximum execution number of the still picture pickup processing that is executed during a period starting when the processing to suspend the moving picture pickup processing is executed until the processing to resume the moving picture pickup processing is executed (see Monti, column 5 lines 66-67 and column 6 lines 1-3, wherein programmable interlace interval is the frequency for still image capturing, thus the frequency is the upper limit for still image capture).

As for **claim 27**, Kubo, Loui and Monti disclose all the limitations of the parent claim. In addition, Monti discloses forcefully executing the processing to resume the moving picture pickup processing, when the number of execution of the still picture

pickup processing has reached the maximum execution number (see Monti, Fig. 2A, wherein the NO path is chosen in step 208).

As for **claim 28**, Kubo, Loui and Monti disclose all the limitations of the parent claim. In addition, Monti discloses an image pickup instruction section (258) that instructs to pickup a still picture, wherein, when the image pickup instruction section repeatedly instructs to pickup still pictures, the interrupt processing section repeatedly executes the still picture pickup processing during a period starting when the processing to suspend the moving picture pickup processing is executed until the processing to resume the moving picture pickup processing is executed (see Monti, Fig. 2A and column 7 lines 34-37, wherein multiple still images are taken during motion picture suspension).

Regarding **claim 30**, Kubo and Loui disclose all of the limitations of claim 18. However, Kubo and Loui do not disclose

a timer section that measures a time elapsed since the execution of the processing to suspend the moving picture pickup processing by the interrupt processing section;

a judging section that determines whether the elapsed time measured by the timer section has reached a predetermined length of time before the processing to resume the moving picture pickup processing is executed by the interrupt processing section; and

a predetermined processing execution section that executes a predetermined processing if the judging section determines that the predetermined length of time has been reached.

On the other hand, Monti discloses

a timer section (258) that measures the time elapsed since the processing to suspend the moving picture pickup processing is executed by the interrupt processing section,

a judging section (258) that judges as to whether or not the time measured by the timer section has reached a predetermined time before the processing to resume the moving picture pickup processing by the interrupt processing section is executed, and

a predetermined processing execution section (258) that executes a predetermined processing when the judging section determines that the predetermined time has been reached (see Monti, Figs. 2A, 2E, 2D, wherein step 208 determines if time has elapsed and decides to resume video capture or to capture still image).

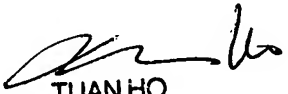
Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the timer section, judging section, and predetermined processing execution section as described by Monti with the image pickup device as described by Loui in order to switch between motion image mode and still image mode because such combination minimizes storage capacity and thus reduces camera cost.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan H. Le whose telephone number is (571) 270-1130. The examiner can normally be reached on M-Th 7:30-5:00 F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tuan Le/

  
TUAN HO  
PRIMARY EXAMINER